

S/137/62/000/005/103/150
A006/A101

AUTHORS: Kutaytseva, Ye. I., Filippova, Z. G., Butusova, I. V.

TITLE: The effect of some elements upon recrystallization processes of alloys used for the cladding of sheets

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 5, 1962, 71, abstract 51431
(V sb. "Deformiruyemyye alyumin. splavy", Moscow, Oborongiz, 1961,
53 - 58)

TEXT: The authors present results of investigating the effect of Mn, Cr, Mg, Ti and Zr upon the size of macrograins in sheets, which were quenched, stretched with different deformation degrees, and then subjected again to heating for quenching. Ingots were manufactured of A00 and AB00 (AV00) grade aluminum with admixture of 0.05, 0.1 and 0.3% Mn, 0.05, 0.1 and 0.3% Zr; 0.05 and 0.1% Ti and 0.05, 0.3 and 0.5% Mg; and also ingots of A2 grade aluminum with addition of 0.03% Mn. When casting ingots in water-cooled molds unlike those obtained by semi-continuous casting, the formation of a coarse-crystal structure can be fully prevented, independent of the previous deformation degree, by adding

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to the composition of grade "A00" Al, used for the plate-table sheets, 0.3% Mn or 0.3% Zr and also by using Al with a higher Fe content. Mn in an amount of 0.3% does not fully exclude the formation of a coarse-grained structure on the sheet surface, clad with high-purity Al (AV000). The presence of small amounts of Mn (0.03%) in the composition of the plate alloy promotes the formation of a coarse-grained structure.

T. Rumyantseva

[Abstracter's note: Complete translation]

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38513
S/123/62/000/011/003/011
A052/A101

17.1210 (2408)

AUTHORS: Kutaytseva, Ye. I., Zhukov, S. L., Butusova, I. V., Filippova, Z. G.

TITLE: Fatigue strength of aluminum-base alloys

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 11, 1962, 2⁴,
abstract 11A151 (V sb. "Deformiruyemyye alyumin. splavy". Moscow,
Oborongiz, 1961, 150 - 157)

TEXT: The effect of structure and of alloying elements (0.3 - 1.1% Si,
0.5 - 2% Mg) on the fatigue strength of Al-alloys of Al-Mg-Si system was studied.
These alloys are applied as a material for longerons of helicopter blades. The
results have shown that an increase of percentage of Mg-phase within its limits
of solubility in the solid solution increases the tensile σ_b and decreases δ .
The maximum fatigue limit have AK8 (AK8), D16 (D16) and У95 (U95) alloys,
 σ_{-1} depending directly on the conditions of ageing. B 95 (V95) alloy has good
 σ_{-1} characteristics, but at the same time an increased sensitivity to stress con-
centrations which reduces σ_{-1} in ready products.

[Abstracter's note: Complete translation]

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KUTAYTSEVA, Ye.I.; BUTUSOVA, I.V.

Investigating alloys in the system Al - Mg - Si used in
helicopter construction. Issl. splav. tsvet. met. no.4:257-
265 '63. (MIRA 16:8)

(Aluminum-magnesium-silicon alloys—Testing)
(Helicopters—Design and construction)

S/2981/64/000/003/0027/0035

ACCESSION NR: AT4037644

AUTHOR: Kutaytseva, Ye. I.; Zhudov, S. L.; Butusova, I. V.

TITLE: Effect of technological factors on occurrence of macrocrystalline ring in alloys of the system Al-Mg-Si

SOURCE: Alyuminiyevye splavy*, no. 3, 1964. Deformiruyemye splavy* (Malleable alloys), 27-35

TOPIC TAGS: aluminum alloy, alloy AV, alloy AD33, alloy AD35, alloy mechanical property, alloy corrosion resistance, alloy microstructure, alloy homogenizing, alloy pressing temperature, manganese admixture, magnesium containing alloy, silicon containing alloy

ABSTRACT: Rods (diameter 22 mm) were pressed at 430, 460, 500 or 530C from ingots of alloys AV and AD33, some of which were preliminarily homogenized (8 hrs. at 490 to 24 hrs at 570C). The alloys differed in the Mg: Si ratio and had differing contents of Cr, Cu and Mn. Test samples were water quenched from 520 ± 5 C and aged 16 hrs at 160C. Other tests involved hollow shapes, factory pressed at 420, 450, or 500C from AV or Mn-free AV ingots (diameter 345 mm, some homogenized), as well as from alloy AD35 ingots

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ACCESSION NR: AT4037644

(at 470-500C, not homogenized; AD35 is AV plus 0.7% Mn). All profiles were heat treated as above. Results of tensile, fatigue and corrosion tests, as well as microstructure studies, indicate that hot pressing at 480-500C from non-homogenized ingots is optimal for AV and AD33, insuring uniformly fine structure and good mechanical properties. Addition of 0.7% Mn produces these results irrespective of pressing or homogenizing procedure. The stress-rupture strength of AD35 in a corrosive medium equals that of AV and its overall corrosion resistance is much better (no appreciable reduction in tensile strength and relative elongation after 2 months in 3% NaCl solution plus 0.1% H₂O₂, as compared to 15.1 and 8.15% reductions, respectively, for AV alloy). "The corrosion tests were carried out by S. M. Ambartsumyan." Orig. art. has: 3 tables, 2 graphs and 2 illustrations.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 04Jun64

ENCL: 00

SUB CODE: MM

NO REF SOV: 000

OTHER: 001

Card 2/2

ACCESSION NR: AT4037663

S/2981/64/000/003/0216/0226

AUTHOR: Kutaytseva, Ye. I.; Filippova, Z. G.

TITLE: Effect of heat treatment conditions on the mechanical properties and surface quality of pressed parts made of alloys V95 and D16

SOURCE: Alyuminiyevye splavy*, no. 3, 1964. Deformiruyemye splavy*
(Malleable alloys), 216-226

TOPIC TAGS: aluminum, aluminum alloy, malleable aluminum alloy, alloy V95, alloy D16, alloy mechanical property, alloy heat treatment, alloy surface quality, aluminum pressing

ABSTRACT: Rejects of pressed shapes due to the presence of dark spots on their surface are frequently encountered in practice, since investigations have shown a reduction in strength at such points. The formation of dark spots on the surface of pressed parts is connected with the conditions under which they are quenched. In case of dense packing of parts, steam pockets may form between them and reduce the cooling rate. Dark spots have frequently been observed on parts made of alloy V95. The present study on pressed specimens of V95 and D16 aluminum alloys was designed to determine the influence of the time consumed for the transfer of specimens from the saltwater bath to the quenching

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ACCESSION NR: AT4037663

tank on the mechanical properties, the electric resistivity, and the surface quality. The influence of manganese and zirconium on the mechanical properties and rate of transformation of the solid solution was also studied. Both freshly quenched and quenched and aged specimens were tested. Some of the effects on strength are shown in Figures 1 and 2 of the Enclosure. The electrical resistivity generally decreased sharply when the transfer from the saltpeter bath to the quenching tank took more than 30 seconds, although the effect was much less in the absence of Mn and Cr. On the basis of the results obtained it is concluded that the appearance of dark spots on the surface of heat treated pressed products after anodizing is caused by transformation of the solid solution, and depends on the chemical composition of the alloy as well as on the conditions during heat treatment. Thus, all factors which stimulate the transformation of solid solutions will promote the formation of dark spots. Under normal conditions, the dark spots are found to disappear on requenching. The presence of manganese greatly affects the transformation rate of a solid solution, particularly in alloy V95 and to a lesser degree in alloy D16. Correspondingly, the influence of the time consumed for transfer of specimens from the saltpeter bath to the quenching tank is greater for alloy V95 than for D16. Quantities of zirconium on the order of 0.16 - 0.35% also produce a considerable increase in the strength of pressed products made of alloy V95. However, the transformation rate of the solid solution is lower with zirconium than with manganese, and therefore the alloy is less sensitive to the conditions of heat treatment. This property can be significant for

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ACCESSION NR: AT4037663

improving the quenching of large-sized parts. Orig. art. has: 4 figures and 2 tables.

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 04Jun64

ENCL: 02

SUB CODE: MM

NO REF SOV: 000

OTHER: 000

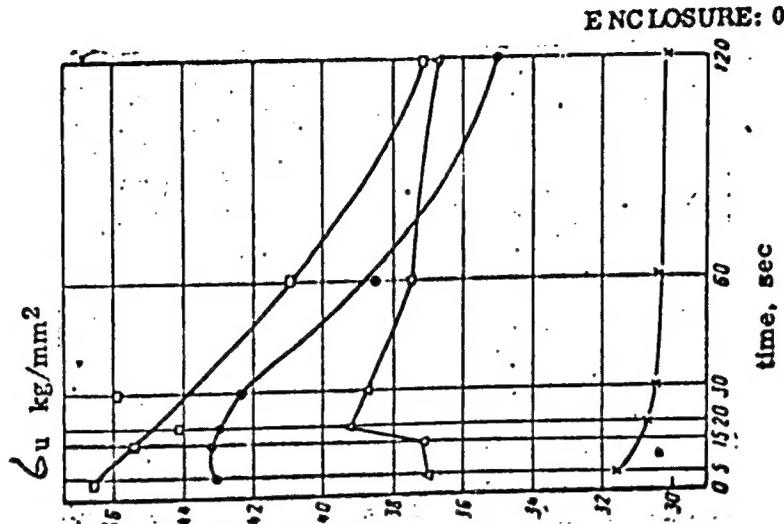
3/5

Card

ACCESSION NR: AT4037663

Fig. 1 - Ultimate strength of Aluminum Alloys in freshly quenched condition versus time consumed for transfer of specimens from the Salt peter Bath to the Quenching Tank

- - V95
- x - V95 without Mn and Cr
- △ - V95 without Mn and Cr, but with Zr
- - D-16



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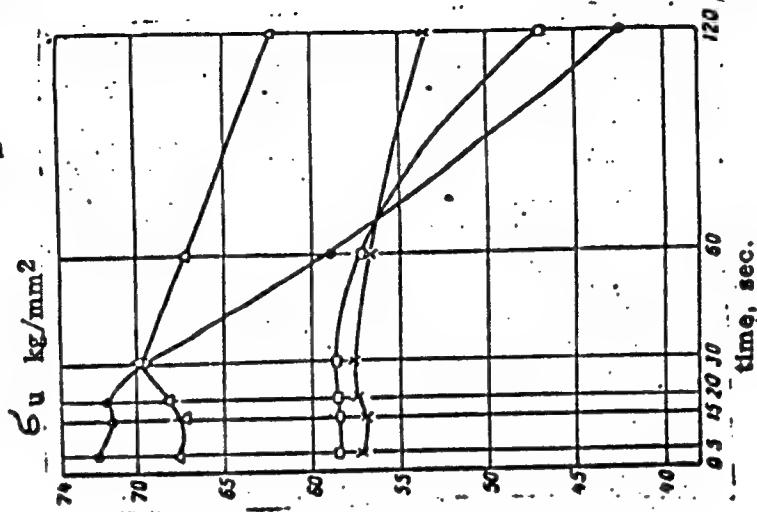
Card

ACCESSION NR: AT4037663

ENCLOSURE: 02

Fig. 2 - Ultimate strength of Aluminum Alloys in quenched and aged condition versus time consumed for transfer of specimens from the Saltpeter bath to the quenching tank

- - V95
- ✗ - V95 without Mn and Cr
- △ - V95 without Mn and Cr, but with Zr
- - D-16



Card 5/5

ACC NR: AT6024945 (A,N)

IP(c) ER/JRW

SOURCE CODE: UR/2981/66/000/004/0303/0306

AUTHOR: Kutaytseva, Ye. I.; Komissarova, V. S.; Butusova, I. V.; Tegorova, N. V.;
Usacheva, R. P.

ORG: none

TITLE: High-strength corrosion-resistant V91 alloy

SOURCE: Alyuminiiyeyye splavy, no. 4, 1966. Zharoprochnyye i vysokoprochnyye splavy
(Heat resistant and high-strength alloys), 303-306

TCPIC TAGS: aluminum alloy property, high strength alloy, corrosion resistant alloy

ABSTRACT: The corrosion-fatigue properties of alloys of the Al-Mg-Zn system were studied at a constant content of 4% Zn, 0.35% Mn, and 0.17% Cr, with admixtures of copper from 0 to 1.5% and magnesium from 0 to 4%. Rod specimens were quenched from 477°C in water and air, and aged for 4 hr at 100°C + 8 hr at 157°C. The optimum composition of the alloy was given the designation V91. It contained 3.7-4.5% Zn, 1.6-2.0% Mg, 0.6-1.0% Cu, 0.1-0.25% Cr, 0.2-0.5% Mn, bal. aluminum. The strength characteristics of this alloy were determined. In absolute values, the corrosion-fatigue strength of V91 is higher than that of AV and AD33 alloys, but from the standpoint of loss of fatigue strength resulting from the attack of the corrosive medium (0.001% NaCl), V91 is inferior to AD33. It is concluded that semifinished products of V91

Cord 1/2

ACC NR: AT6024945

have high static and dynamic properties with a satisfactory corrosion resistance, and are easy to produce. Orig. art. has: 1 figure and 3 tables.

SUB CODE: 11/ SUEM DATE: none/ OTH REF: 005

NJ
Card 2/2

KUTBANBAYEV, S.M.

Some biological features of *Korolkowia severtzowii* and aconite
growing in Kazakhstan. Vest AN Kazakh. SSR 17 no.2:83-87 F '61.

(MIRA 14:2)

(Aconite)

(Kazakhstan--Botany, Economic)

SHAPIRO, S. A., KUTCHAK, S. N., VAYNBERG, I. A.

Fever

Hemorrhagic fever. Fel'd.i akush. No.9, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

ИФРАН, И.Р.

KHASHIMOV, D.M., dotsent (Stalinabad); TSETLIN, A.L., kandidat biologicheskikh nauk (Stalinabad); KUTCHAK, S.H. (Stalinabad); SPAFOPOLO, P.K. (Stalinabad).

Affect of intestinal protozoa on the course of bacillary dysentery.
Klin.med. 31 no.12:74-75 D '53. (MLRA 7:1)

1. Iz kafedry infektsionnykh bolezney (ispolnyayushchiy obyazannost' zaveduyushchego - dotsnet S.Ye.Shapiro) Stalinabadskogo meditsinskogo instituta im. Avitsenny, Instituta malyarii i meditsinskoy parazitologii Ministerstva zdravookhraneniya Tadzhikskoy SSR i Stalinabadskoy infektsionnoy bol'nitay.

(Dysentery) (Protozoa, Pathogenic)

KUTCHAK, S. N. Canad Med Sci -- (diss) "On toxic myopathy ~~and~~ and cirrhosis of the liver in Southern Turkmenistan." Stalinabad, 1957.
19 pp 24 cm (Stalinabad Med Inst im Abraim- Ibra- Sina (at. 1957))
noo p. inc. (KL, 23-57, 117)

-151-
123

MANSUROV, Kh.Kh.; KUTCHAK, S.N.; STAVISKIY, Ya.D.; MAKAREVICH, Ya.A.;
AMINDZHANOV, S.A.

Diagnostic significance of intravital liver biopsy. Zdrav. Tadzh.
7 no.5:8-13 '60. (MIRA 13:12)
(LIVER) (BIOPSY)

KUTCHAK, S.N., kand.med.nauk

Acute and chronic forms of infectious hepatitis as revealed by intra-vital needle biopsies. Zdrav. Tadzh. 7 no.5:13-18 '60.

(MIRA 13:12)

(HEPATITIS, INFECTIOUS)
(LIVER)

(PUNCTURES (MEDICINE))

MANSUROV, Khamid Khusenovich, prof.; KUTCHAK, Svetlana Nikolayevna,
st. nauchn. sotr. Prinimala uchastiye MONASTYRSKAYA, B.I.,
prof.; GESSEN, L.A., red.

[Liver biopsy; atlas of histological studies] Biopsia pe-
cheni; atlas gistolicheskikh issledovani. Dushanbe,
Akad. med. nauk SSSR, 1964. 137 p. — [Atlas of color
microphotographs] Atlas tsvetnykh mikrofotografii. 54 p.
(MIA 18:2)

KUTCHAK, S.N.

Dynamics of morphological and some histochemical changes in
the liver in acute and prolonged forms of Botkin's disease
according to data of intravital needle biopsy of the liver.
Trudy Inst. kraev. med. AN Tadzh. SSR no.1;43-56 '62.
(MJRA 17;5)

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MANHATTAN, NEW YORK, U.S.A.

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(MIRA 19:8)

APPROVED FOR RELEASE: 03/13/2001

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KUICERK, D.P.

Morphological changes of biopsy material taken from the liver in
certain diseases. Acta Med. pol. 1971, 11, 284-296 1973.
(MIRA 18:8)

KUTCHAK, S.N.

Morphological changes in the liver during Botkin's disease
of various gravity in its clinical course. Akt.vop.pat.pech.
no.3:23-24 '65. (MIRA 18:11)

KUTCHAK, Ye.N.; UL'YANOVA, A.A.

Changes in electric conductivity of human skin in ontogenesis.
Fiziol.zhur.40 no.1:82-85 Ja-F '54. (MLRA 7:2)

1. Klinika nervnykh bolezney Stalinabadskogo meditsinskogo instituta.
(Electrophysiology)

Khutchak, Ye. N.

Kutchak, Ye. N.

"Material on the problem of changes in his nervous activity in patients suffering from epileptic attacks." Stalinabad State Medical Institute, Abuali-Ibn-Sina (Avitsevna), Stalinabad, 1956. (Dissertation for the Degree of Candidate in Medical Sciences).

Knizhnaya letopis'
No. 21, 1956. Moscow

KUTCHAK, Ye.N.

KUTCHAK, Ye.N.; SAVINA, R.I.

A rare observation of multiple arachnoid epitheliomas. Vop.
neirokhir. 21 no.6:56-57 N-D '57. (MIRA 11:2)

1. Kafedra nervnykh bolezney i kafedra patologicheskoy anatomii
Stalinabadskogo meditsinskogo instituta
(ARACHNOID, neoplasma
epithelioma, case report)

KUTCHAK, Ye.N.

State of the nervous system in heliotropic hepatitis.
Zhur. nevr. i psich. 62 no.3:380-383 '62. (MIR. 15:3)

1. Klinika nervnykh bolezney (zav. - prof. S.G. Akhundov)
i kafedra fakul'tetskoy terapii (zav. - prof. I.B. Likhtsiyor)
Dushanbinskogo meditsinskogo instituta imeni Avitsenny.
(LIVER--DISEASES) (NERVOUS SYSTEM)
(HELIOTROPE (PLANT)--TOXICOLOGY)

KUTCHAK, Ye. N. (Dushanbe)

Number of disorders of the nervous system during the first days in newly arrived persons at an altitude of 4200 meters".

Report presented at the Scientific Conference devoted to the problems of physiology and pathology in High Altitudes, Ministry of Health Tadzhik SSR and Medical Institute im. Abdul' Ibn-Sino, held in Dushanbe, October 1962. (Zdravookhraneniye Tadzhikstana, Dushanbe, No. 3, 1963, p. 37-39).

ACCESSION NR: AT4045950

S/3111/63/062/000/0103/0107

AUTHOR: Kutchak, Ye. N.

TITLE: The effect of high altitude on the human nervous system

SOURCE: Dushanbe. Gosudarstvennyy meditsinskiy institut. Trudy*, v. 62, 1963.
Voprosy* fiziologii i patologii vy*sokogor'ya; trudy* nauchnoy konferentsii, 1962.
(Problems of the physiology and pathology of Alpine regions; transactions of the
1962 scientific conference), 103-107

TOPIC TAGS: high altitude, hypoxia, altitude sickness, central nervous system,
respiration, pulse rate, neurological sign

ABSTRACT: Observations on neurological status, motor and sensory chronaxy and the
condition of the central and autonomic nervous systems were performed on 28 people
living in a camp in the Pamirs at 4200 meters above sea level. The results showed
that during the first few days at that altitude practically all the subjects com-
plained about headaches, sleep disturbances, shortness of breath and general
malaise. Investigation of the cortical dynamics showed disturbances in 6 subjects
which indicated some weakening of the inhibitory processes. In 20 of the 28 sub-
jects, during the first few days after arrival at 4200 meters, there was tremor

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of the eyelids and fingers and locomotor disturbances of varying intensity. In part of the people the plantar reflex could not be produced, while in 16 there was a Chvostek's sign. Chronaximetric determinations showed a more or less distinct shortening of the rheobase. In most of the subjects examined, there was an increase in pulse rate, and in 10 out of 16 individuals investigated, at various intervals after they fell asleep, pneumography revealed periodic respiration. Pneumography performed on 5 natives of the mountain area also showed periodic respiration during sleep. This disturbance in the rhythm of respiration under conditions of hypoxia during sleep indicates the importance of central nervous structures in the regulation of respiration and shows that acclimatization is not very important in the appearance of respiratory disturbances under these conditions. The second examination of these individuals, after 1-2 months in the mountains, showed all of them to be well adapted, the only symptom being dyspnea after physical exertion. There were no changes in cortical dynamics or the neurological status when compared with data obtained prior to their ascent. After 3 months' residence in the mountains, however, 12 subjects again showed the same signs as during the first few days. The reasons for this are unclear.

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Card

ACCESSION NR: AT4045950

ASSOCIATION: Tadzhikskiy meditsinskij institut im. Abuali ibni Sino, Dushanbe
(Tadjik Medical Institute)

SUBMITTED: 00

ENCL: 00

SUB CODE: LS

NO REF Sov: 018

OTHER: 000

Card 3/3

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000927910016-6

INTERVIEW WITH

REPORT OF AIRCRAFT ACCIDENTS AND INCIDENTS
SYSTEM. THIS IS AN AUTOMATIC COMPUTERIZED SYSTEM
FOR REPORTING AND ANALYZING AIRCRAFT ACCIDENTS
AND INCIDENTS.

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000927910016-6"

KUTCHAK, Ye.N., kand. med. nauk

Disorders in the respiratory movements of patient with brain tumor.
Vop. neirokhir. 28 no.2:23-28 Mr-AP 1(1)

(MIRA 19:2)

1. Kafedra nervnykh bolezney Tadzhikskogo nehirnogo in-ta, Dushanbe.

KUTDUSOVA, Kh.

Capability of *Proteus* to retard the effect of penicillin used for
the treatment of associated suppurative infections. Zhur. mikro-
biol. epid. i immun. no.10:98 O '54. (MLRA 8:1)

1. Iz kafedry mikrobiologii Bashkirskogo meditsinskogo instituta
(PENICILLIN) (PROTEUS)

Kv [B] U.S.S.R., Kh.
USSR/Medicine - Antibiotics

FD-2317

Card 1/1 Pub 148 - 18/36

Author : Kutdusova, Kh. A., Aspirant

Title : The sensitivity of Proteus bacteria to synthomycin

Periodical : Zhur. mikro. epid. i imun. No 2, 52-54, Feb 1955

Abstract : Established that synthomycin has a bactericstatic effect on proteus strains in vitro, prevents mice infected with proteus bacteria from dying of septicemia, and expedites on peroral administration the disappearance of the local reaction produced in rabbits which have been infected intracutaneously with proteus bacilli.

Institution : Chair of Microbiology, Bashkir Medical Institute

Submitted : November 2, 1953

KUTDUSOVA, Kh.

Effect of antibiotics on the properties of Proteus. Report No.1:
Modification of synthomycin-resistant strains of Proteus in vitro;
author's abstract. Zhur.mikrobiol.epid. i immun.28 no.8:40-41
(MIRA 11:2)
Ag '57.

1. Iz kafedry mikrobiologii Bashkirskogo meditsinskogo instituta.
(PROTEUS, effect of drugs on,
chloramphenicol, resist. (Rus))
(CHLORAMPHENICOL, effects,
on Proteus, resist. (Rus))

17(2,12)

SOV/16-59-6-7/46

AUTHOR: Kutdusova, Kh.A.

TITLE: Changes in the Properties of Proteus Under the Influence of Antibiotics.
II. The Effects of Synthomycin on the Properties of Proteus and the Course
of Experimental Wound Infection Caused by Synthomycin-Sensitive and
Synthomycin-Resistant Forms of Proteus

PERIODICAL: Zhurnal mikrobiologii, epidemiologii i immunobiologii, 1959, Nr 6,
pp 35-40 (USSR)

ABSTRACT: P.N. Kashkin, V.N. Kosmodamianskiy, Kh.A. Kutdusova, A.F. Moroz, T.P.
Ovcharova, L.G. Peretts, Kh.Kh. Planel'yes, Z.G. Pershina, O.I. Shevyakova,
and L.M. Yakobson have all noted that the formation of resistant forms of
bacteria under the influence of antibiotics is often accompanied by a
change in some of their properties which in turn, as F.T. Grinbaum and
V.N. Shirayayeva have pointed out, affects the course of the infectious
process. The present work is devoted to a study of the effects of syntho-
mycin on the properties of Proteus and the course of experimental wound
infection provoked by synthomycin-sensitive and synthomycin-resistant
forms of Proteus. Rabbits were injected intrabdominally with one or the
other of these forms and then subjected to synthomycin therapy. The

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SOV/16-59-6-7/46

Changes in the Properties of *Proteus* Under the Influence of Antibiotics. II. The Effects of Synthomycin on the Properties of *Proteus* and the Course of Experimental Wound Infection Caused by Synthomycin-Sensitive and Synthomycin-Resistant Forms of *Proteus*

control group was similarly injected but did not receive synthomycin. Synthomycin had no marked effect on the resistant forms but cut the healing period of the local purulent process in the animals injected with synthomycin-sensitive strains by 1 1/2 - 2 times, compared with the control group. Synthomycin sensitivity was partially restored in the synthomycin-resistant *Proteus* strains isolated from both the test and control groups. In addition, some of the strains isolated from the test group had lost their ability to lyse sugar and form hydrogen sulfide. The mean agglutinin titre in the animals, infected with synthomycin-sensitive strains was 20 times lower than in the untreated animals, but 3.7 times higher than in the treated animals, infected with synthomycin-resistant *Proteus*. The mean antibody titre in the treated animals infected with resistant *Proteus* was 1.2 times lower than in the control, untreated animals.

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SOV/16-59-6-7/46

Changes in the Properties of Proteus Under the Influence of Antibiotics. II. The Effects of Synthomycin on the Properties of Proteus and the Course of Experimental Wound Infection Caused by Synthomycin-Sensitive and Synthomycin-resistant Forms of Proteus

There are: 3 tables and 17 references, 15 of which are Soviet and 2 English.

ASSOCIATION: Bashkirskiy meditsinskiy institut (Bashkir Medical Institute)

SUBMITTED: February 1, 1958

Card 3/3

KUTDUSOVA, Kh.A...

Change in the properties of Proteus under the influence of antibiotics. Report No.3: Comparative study of the properties of various forms of Proteus following synthomycin therapy for associated purulent infection. Zhur. mikrobiol. epid. i immun. 31 no.2;101-102 D '60.
(PROTEUS) (CHLOROMYCETIN)

KUTDUSOVA, Kh.A.

Antibiotic treatment of experimental *Staphylococcus* and *Proteus* infections. *Antibiotiki* 7 no.1:58-60 Ja '62. (MIRA 15:2)

1. Kafedra mikrobiologii (zav. - prof. N.I.Mel'nikov) Bashkirskogo meditsinskogo instituta imeni 15-letiya Vsesoyuznogo Leninskogo kommunisticheskogo soyuza molodezhi.
(ANTIBIOTICS) (PHOTLUS) (STAPHYLOCOCCAL DISEASE)

KUTEJ, B., prom. pravnik

On the possibility of using the diaphone technique in in-patient hospital departments. Česk. zdrav. 17 no. 9/1984 - 164.

1. Výzkumný ústav organizace zdravotnictví, Praha - základna Kromeriz.

KUTEJ, B., prom. pravnik; HEJNA, D., zdrav. sestra

Problems in rationalization of the work of nurses in hospitals
in conjunction with handling linen. Cesk. zdrav. 11 no.7/8:
367-371 '63.

1. Vyzkumny ustav organizace zdravotnictvi, terenni vyzkumna
skupina v Kromerizi.
(HOSPITAL NURSING SERVICE)
(HOSPITAL HOUSEKEEPING)

KUTEJ, B., prcm. pravnik

Time spent by hospital physicians on writing medical reports for attending physicians. Cesk. zdrav. 12 no.7/8:397-402 Ag '64.

1. Vyzkumny ustav organizace zdravotnictvi v Praze -- zakladna Kromeriz.

FIG. 2. Doplňkové pravidlo k "Doplňkovému pravidlu řízení významných

Adventuristických organizací v Československu".

Česká zahraniční agentura ČSSR - 6. 1. 64

• Vyškoupení významné organizace zahraničního řízení

• Vyškoupení významné organizace zahraničního řízení

RUTEK, B.

How to improve the management activities of senior paramedical personnel in administrative positions. Cesk. zdrav. 13 no.11:
583-588 K '65.

1. Vyzkumný ústav organizace zdravotnictví.

KUTEK, F

CZECHOSLOVAKIA

PETRU, F.; KUTEK, F.; SAVAVA, J.

Institute of Inorganic Chemistry, College of Chemical
Engineering (Institut für anorganische Chemie, Technische
Hochschule für Chemie), Prague (for all)

Prague, Collection of Czechoslovak Chemical Communications,
No 11, November 1966, DD 4459-62

"On the chemistry of rare elements. Part 22: Basic lanthanum
carbonate."

L 23484-65 EWT(m)/EPP(o)/EPR/EMP(t)/EMP(b) Pr-4/Po-4 IJP(o) JD/JW/JO
ACCESSION NR: AP5000502 S/0078/04/009/012/2784/2786

AUTHOR: Kutek, E.

TITLE: Scandium oxyfluoride,?

SOURCE: Zhurnal neorganicheskoy khimii, v. 9, no. 12, 1964, 2784-2786

TOPIC TAGS: scandium oxyfluoride, scandium fluoride, scandium oxide, scandium oxyfluoride synthesis, scandium oxyfluoride crystal

ABSTRACT: Direct synthesis of this compound was attempted by heating a pressed mixture of scandium oxide and scandium fluoride under air exclusion. After 5 hours at 1100C, full transformation into the oxyfluoride was obtained. Another method, by hydrolysis, consists in heating scandium fluoride under humid nitrogen to a constant temperature of 800 C. Both methods gave ScOF in yields close to the theoretical values. The compound crystallized in a cubic syngony; its lattice corresponds to the type CaF₂ $a = 5.575 \text{ \AA}$, with 4 molecules per cell element. The distance between Sc-F and Sc-O was found at 2.413 \AA . The infrared absorpt-

Card 1/2

L 23494-65
ACCESSION NR: AP5000502

2

ion spectrum is presented. "The author wishes to thank Professor Petri for the great attention he gave to this work." Orig. art. has: 3 figures and 1 table

ASSOCIATION: Khimiko-tehnologicheskiy institut Kafedra neorganicheskoy khimii
Prague (Chekhoslovakiya) (Institute of Chemical Technology Department of
Inorganic Chemistry)

SUBMITTED: 11Apr64

ENCL: 00

SUB CODE: GC, IC

NR REF SOV: 002

OTHER: 009

Card 2/2

CZECHOSLOVAKIA

KUTEK, F; JURSIK, F

Institute of Inorganic Chemistry, Technical College
of Chemistry (Institut fur anorganische Chemie,
Technische Hochschule fur Chemie), Prague - (for both)

Prague, Collection of Czechoslovak Chemical Communications,
No 5, May 1966, pp 2273-2278

"Compounds of Copper (II) Glycinate and Ammonia."

KUTEK, E.

Distr: 4E2c

A The chemistry of the rare earth elements. X. Basic scandium halides. P. Pejša and P. Kutek (Vysoká škola chem. technol., Prague). Collection Czech. Chem. Commun., 25, 1143-7 (1960) (in German); cf. CA 53, 21929e. ScCl₃.6H₂O and ScBr₃.6H₂O are formed by adding Sc₂O₃ to an excess of boiling HCl and HBr, resp. When Sc₂O₃ is in excess, basic halide pentahydrates are formed: Sc(OH)Cl₄.5H₂O, Sc(OH)Br₃.5H₂O, and Sc(OH)I₂.5H₂O. Thermal decompn. of all the compds. gives Sc₂O₃ as final products, ScOCl and ScOBr being the intermediates. Formation of the trihydrate was noted in heating the hexahydrates.

M. Hudkevich

4
1-1
1-1

HOSKALER, Zdenek & KUTEK, Frantisek

Conductometric determination of a small quantity of the
bicarbonate mixed with excess sodium carbonate and vice
versa. Chem prum 12 no. 3:128-130 Mr '62.

1. Vysoka skola chemickotechnologicka, Praha.

HOSTALEK, Zdenek; KUTEK, Frantisek

Conductometric determination of small quantity of alkali
carbonate in mixtures with alkali hydroxide. Chem prum
12 no.9:490-493 S '62.

1. Katedra anorganicko chemie, Vysoka skola chemickotechnologicka,
Praha.

KUTEK, Jan

Correlation between the middle Bonnian of Tomaszow Mazowiecki and
Antoninow. Przegl geol 9 no.12:662-663 '61.

1. Uniwersytet Warszawski.

KUTEK, Jan

Kimeridgian and Bononian deposits in Stobnica. Acta geol pol 11 no.1:
103-183 '61.

1. Zaklad Geologii Dynamicznej Uniwersytetu Warszawskiego.

KUTAK, Jan

Submarine landslides and cherts in the lower Kimeridgian limestones
of the Malogoszcz region. Acta geol Pol 12 no.3:377-391 '62.

1. Laboratory of Dynamic Geology, University, Warsaw.

KUTEK, Jan

Upper Kimeridgian and Lower Volga of the northwest Mesozoic border of
the Bory Swietokrzyskie. Acta geol Pol 12 no.4:445-527 '62.

1. Zaklad Geologii Dynamicznej, Uniwersytet, Warszawa.

KUTEK, Jan

Stratigraphic problems of the Kimeridgian and uppermost Oxfordian
in Poland. Acta geol Pol 12 no.4:529-540 '62.

1. Zaklad Geologii Dynamicznej, Uniwersytet, Warszawa.

KUTEK, Jan; WITKOWSKI, Andrzej

Kimberidgian and Bononian in the boreholes in Zarzecin. Kwartalnik
geol 7 no.1:159-168 '63.

1. Zaklad Geologii Dynamicznej, Uniwersytet, Warszawa, i Zaklad
Zloz Rud Zelaza, Instytut Geologiczny, Warszawa.

2/005/61/000/006/002/002
D005/D102

AUTHORS: Chrura, František, a Křížek, Josef

TITLE: The M 110 H engine

PERIODICAL: Královská vlasti, no. 26, 1961, 14-17

TEXT: The *výzkumný a skúšební letecký ústav* (Aviation Research and Testing Institute) in Letňany developed a small, light-weight helicopter engine with low fuel consumption which is simple to produce and assemble and easy to maintain. The engine, designated M 110 H, has been built by the Automobilové závody Jiriho Dimitrova "Avia" (Jiri Dimitrov Automobile Works "Avia") in Letňany and is being tested according to the British BCAR testing specifications for helicopter engines. The engine is expected to be put into quantity production before the end of 1961. The tentative overhaul period has been set at 300 hours; however, preliminary tests indicate it can be extended to 600 hours. Further development provided for the engine to be fitted with hydraulically-operated push-rod to limit the vibration amplitude. With certain modifications, the engine can also be mounted in ground vehicles and ships. The M 110 H is a four-stroke horizontally-opposed four-cylinder, forced-air-cooled engine with a crankshaft-mounted centrifugal clutch. It

Carri 1/4

REF ID: A6576001
DRAFT

Type M 110 H engine

The Type M 110 H engine is fitted with a low-pressure YH fuel injector, a 6kw W starter, rpm transmission drive of 1:1 gear ratio, one free accessory drive of 1:1 ratio and two accessory drives of 2:1 ratio. The crankshaft is carried in lead-bronze bearings. Two valves per cylinder are inclined to and 20°, respectively, to the cylinder axis and driven by a camshaft with parallel cams located in the lower part of the crankcase. A 7-litre capacity oil tank is fitted to the left side of the crankcase. The crankcase is split along the vertical center-line and houses also the accessory drive casings. Pressure lubrication of the dry-sump system. Gear-type oil pump (pressure and scavenging) is located in the lower part of the engine. Fuel is injected by a stepped injection pump to the injection nozzles placed in cylinder heads in front of the suction valves and is injected into the middle of the intake air stream. The injection pump consists of a single piston, a discharge-sleeve valve and a delivery van. pump with a regulation valve. Fuel is delivered by the vane pump through the regulation valve into the metering chamber of 0.25 kg/cm² pressure. The fuel injection is regulated by pressure gauge and servo mechanisms. The normal fuel pressure is about 1.5 kg/cm². Ignition is shielded, i.e., by means of a built-in safety ignition system. Each cylinder has two spark plugs with two M 16x1.5 mm pitch.

2000-07

The M 110 H engine

Z/003/01/000/026/002/001
D005/D102

The engine can be mounted either horizontally or inclined up to 45°. Main technical data: Take-off (five-minute) power, 115 hp/3,100 rpm; maximum continuous power, 100 hp/3,000 rpm; cruising power, 80 hp/3,000 rpm; fuel consumption at take-off power, 260 g/hp/hour; fuel consumption at maximum continuous power, 240 g/hp/hour; fuel consumption at cruising power, 225 g/hp/hour; bore, 110 mm; stroke, 87 mm; total cylinder capacity, 3.3 liters; height, 820 mm; fuel type, LBZ 72-80 octane. An alternate version of the M 110 H engine is the M 110 fixed-wing-aircraft engine with the following specifications: Take-off power, 105 hp/2,800 rpm; maximum continuous power, 95 hp/2,650 rpm; cruising power, 75 hp/2,400 rpm; fuel consumption at take-off power, 250 g/hp/hour; fuel consumption at maximum continuous power, 230 g/hp/hour; fuel consumption at cruising power, 200 g/hp/hour; weight, about 90 kg. There are 5 figures.

Card 1/3

KUTEK, Ye.F.

Some results of precipitation-measuring studies at the experimental base Astrakhanka. Trudy GGO no.175:177-179 '65.

(MIRA 18:8)

I. Vladivostokskaya gidrometeorologicheskaya observatoriya.

KUTELIYA, A.A.

Basic principles of D.N. Uznadze's theory of readiness. Vop. psichol.
2 no.2:28-37 Mr-Ap '56. (MLRA 9:8)

1. Akademiya nauk Gruzinskoy SSR, Tbilisi.
(Psychology)

USSR/Human and Animal Physiology (Normal and Pathological)
Nervous System. Metabolism.

T

Abs Jour : Ref Zhur Biol., No 6, 1959, 27004

Author : Kuteliya, Kh. A.

Inst

Title

: -
: The Dynamics of Changes of Some Biochemical Indexes
(Protein, Sugar and Chlorides) in Spinal Fluid of Children
with Tuberculous Meningitis and Treated with Streptomycin, PAS and Phtivazide.

Orig Pub : Tr. Resp. ob'yedin. detek. klinich. bol'nitsi, GruzSSR,
1957, 1, 149-164

Abstract : No abstract.

Card 1/1

- 106 -

KUTEMINSKAYA, V.Ya.

Investigating the improvement of saline and swampy soils
in irrigated areas with poor ground water flow. Trudy AN
Tadzh.SSR 78:73-88 '57. (MIRh 13:3)
(Vakhsh Valley--Alkali lands)

KUTEMINSKIY V.

The influence of gypsum and gypsum with lime on the
mobility of phosphoric acid in gray, grayish podzolic soils.
S. A. Vinogradov and V. Kuteminsky, Institute of Soil Science, Academy of Sciences of the USSR, Leningrad, USSR.
71, 375 N (1950). Molar and fixed P₂O₅ were added, in
several soil samples. P₂O₅ (50 mg.) was added to each of 2
soil samples in 100 g. portions. From 100 to 250 mg. CaSO₄
(in 4 steps) was added to the first. Molar molar P₂O₅
occurred at 125 mg. CaSO₄. To the 2nd was added 25-250
mg. CaSO₄ (in 5 steps) and 50-250 mg. CaO (in 4 steps).
In the latter, mobility of P₂O₅ continued to increase up to
max. respective doses. These max. correspond 4 to 7.5
and 6 tons/ha., resp. Fixed P₂O₅ was less with gypsum
alone. It was concluded that adding gypsum and P₂O₅ and
lime was useful in conserving P₂O₅ and that lime helps
reduce acidity. Phosphate was added as a buffered salt,
of K₂HPO₄ and NaH₂PO₄ (pH 6.05).

4/7/56 J.M.

L 08091-67 EWT(1)/~~EWI(m)~~ FDN/WE
ACC NR: AP6029992

SOURCE CODE: UR/0413/66/000/015/0196/0196

INVENTOR: Zhukovskiy, A. I.; Orlovskiy, V. I.; Molkov, N. N.; Alechin, V. A.; Kuteminskiy, Yu. A.; Valeyev, F. Sh. 56
13

ORG: none

TITLE: A device for introducing additives while fueling aircraft. Class 62,
No. 184150

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 196

TOPIC TAGS: aircraft fuel system, fuel additives, aircraft fuel system equipment

ABSTRACT: An Author Certificate has been issued for a device for introducing additives while fueling an aircraft. It contains a tank for the additives with a measuring glass, receiving neck, and a drain tap connected with a pipe through a pump, a flow tap, and a sprayer with a fuel-supply line. For the automatic regulation of the fuel additive, its pump is connected to a vane pump, which is inside the fuel-supply line and is spun by the flow of fuel. [SA]

SUB CODE: 21, 01 / SUBM DATE: 14Mar64

Card 1/1776 UDC: 629.13.01/.06

KUTEN, P. S

,20

Crystalline masses from Taharditui loessos for the production of paving blocks. P. S. Kuten. Stroud Material, 1935, No. 7, 43-5. Loess of the company. SiO₂ 49.20, Al₂O₃ 11.25, TiO₂ 0.53, Fe₂O₃ 0.62, MnO₂ 0.36, CaO 12.75, MgO 3.34, SO₃ 0.19, K₂O 2.07, Na₂O 1.27. Ignition loss 12.93%, m. 1140°, was heated at 1330 (400) and cast mechanically into metal molds. In order to obtain a cryst. structure of the block, it was treated after casting in an annealing furnace at 800° to 1000° during 10-12 A hrs. The block had a crushing strength of 3400 kg./sq. cm. and other good mechanical properties.
E. E. Stefanowsky

ASD SLA METALLURGICAL LITERATURE CLASSIFICATION

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000927910016-6

LOPOVOK, L. I., kandidat arkhitektury; KUTEN', P.S.

Rustic clay slabs for wall facings. Rats. i izobr. predl. v
stroi. no.108:18-19 '55. (MLRA 8:10)
(Walls)

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000927910016-6"

YUZHNEI, I.V.; KUTENKOV, V.A.; RODYN'KIN, V.M.

Volcanic pipes of the Southern Tien Shan Range (northern Tien Shan). Dokl.
AN SSSR 158 no. 3:633-635 S '64. (MIKA 17:10)

I. Yuzhno-tadzhitskaya geologorazvedchicheskaya eksploratsiya. Predstavлено
akademikom V.S. Dobolevym.

KUTENEV, V.F.; PUTSEV, I.I.

Stand testing of the 680/450 Leyland engine. Avt.prom. 28 no.2:
45-47 F '62. (MIRA 15:2)

1. YaMZ

(Motortrucks--Engines--Testing)

... - "After liaison at the technical level, both
level and military to the military level, and
at ministerial level (e.g., Foreign Minister)."
Kashmir, 1965. (India has later become a member
of a regional organization, "Dakshinayan,"
and is no longer a client state.)

• Informational, no. 3, 20 October 1965, p. 6.

USSR/Cultivated Plants. Grains.

H

Abs Jour : Ref Zhur-Biol., No 15, 1953, 68127

Author : Kutonitsyn, V. K.

Inst : -

Title : Sorting Corn Seed Accordin' to Specific Weight.

Orig Pub : S. kh. Kubani. Inform. byul., 1957, No 1,
78-82

Abstract : No abstract.

Card : 1/1

KUTENKO, A.V.

Procedures in servicing train telephones should be revised.
Avtom. telem. i sviaz' b no. 3:43 Mr '64. (MIRA 17:5)

1. Nachal'nik Gomel'skoy distantsii signalizatsii i svyazi
Belorusskoy dorogi.

PARUNAKYAN, V.E., inzh. (Chelyabinsk); YASYUCHENYA, V.V., inzh.
(Chelyabinsk); KUTENKO, I.S., inzh. (Chelyabinsk)

Universal track maintenance machine. Put' i put.khoz. 6
no.11:32-33 '62. (MIRA 16:1)
(Railroads—Equipment and supplies)

KON'KOV, A. V.; KUTENKO, M. T. (Severomorsk)

Familial alkaptonuria. Klin. med. 40 no.7:117-119 J1 '62.
(MIRA 15:7)

(ACETIC ACID)
(URINE—ANALYSIS AND PATHOLOGY)

PERMITIN, V.Ye.; ZHURAVLEV, P.Ya.; KUTENKO, Yu.V.; POKROVSKIY, V.A.

Using exothermic mixes in continuous steel teeming. Biul.tekh.-
ekon.inform.Gos.nauch.-issl.inst.nauch.i tekhn.inform. no.8:9-11
Ag '65.
(MIRA 18:12)

ZHURAVLEV, P.Ya.; EFROS, D.I.; KUTENKO, Yu.V.; POKROVSKIY, V.A.; GRANAT, I.Ya.; MOROZENSKIY, L.I.; GORSKIY, V.B.

Influence of vacuum treatment and the conditions of steel deoxidation on the formation of surface defects in continuous ingots. Stal' 25 no.10:891-894 O '65.

1. Gor'kovskiy mashinostroitel'nyy zavod. (MIRA 18:11)

KUTENKOV, I.Ye., brigadir shtukaturov,

My method of plastering. Gor.khoz.Mosk. 24 no. 5:28-31 My '50.
(Plastering) (MLRA 7:11)

PETROV, G.I.; KUTENKOV, M.V.; TENENBAUM, I.M.; YEVSEYEVA, L.S.;
KONSTANTINOV, M.M., nauchnyy red. [deceased]; SHASHKIN, V.L.,
nauchnyy red.; SURAZHSKIY, D.Ya., nauchnyy red.; ZAVODCHIKOVA,
A.I., red.; MAZEL', Ye.I., tekhn.red.

[Methods of geological and geophysical exploration and control in
uranium mines] Metody geologo-geofizicheskogo obslushhivaniia
uranovykh rudnikov. Moskva, Izd-vo Gos.kom-ta Soveta Ministrov
SSSR po ispol'sovaniyu atomnoi energii, 1960. 217 p.

(MIRA 13:10)

(Mining geology)

(Uranium ores)

GLUBOKOVA, P.D.; MIROSHNIKOVA, Ye.Z.; KUPRIEV, V.P.

Condition of the upper respiratory tracts and ear in agricultural workers of Lenin and Vyazemskiy Districts, Khabarovsk Territory.
Vest. oto-rin. 17 no.5:66-69 S-0 '55. (MIRA 9:2)

1. Iz kafedry bolezney ukha, gorla, i nosa (zav. prof. B.A. Shvarts)
Khabarovskogo meditsinskogo instituta.

(OTORHINOLARYNGOLOGY,

otorhinolaryngol. organs in agricultural workers)

(AGRICULTURE,

otorhinolaryngol. organs in agricultural workers)

KUPRIKOV, I. V.

Movyy metod shtukaturnykh rabot. (New methods in plastering work). . . Moskva
(IZD-VO "Pravda", 1950.

21 p. Diagrs.

At head of title: Vsesotuznkiye Oeshchestvo po rasprostraneniyu Politicheskikh
I Nauchnykh Znaniy.

Lecture explaining new method of continuous plastering operations with separate
simple processes.

SELEZNEV, Z.; ASADULLIN, JR.; BUDIMOV, Y.; KUZNETSOV, A.; MIRKOV, R.;
TOKOLOV, N.; VALIAKHMETOV, F.

Exclusion of a circulation-less zone using a packer. Bureau
no.3:29-33 '65. (MIRA 1815)

1. Trest "Bashknapadnopravzhet".

KUTEPOV, A.G. (Kuybyshev (oblastnoy), ul. Ventsika, d.9, kv.2)

Cystadenoma of the lung. Nov.khir.arkh. no.1:109 Ja-P
'59. (MIRA 12:6)

1. Kuybyshevskiy oblastnoy gospital' dlya invalidov Oteche-
stvennoy voyny (nauchnyy rukovoditel' - prof. S.L.Libov).
(LUNGS--TUMORS)

KUTEPOV, A.M.

Centrifugal separation of secondary vapors by concentration
evaporation of solutions. Khim.prom. no.1:60-64 Ja '62.
(MIRA 1:1)
(Separators (Machines))

KOTIELOV, A.M.

Using the electric conductivity method for the continuous
automatic control of salt extraction in evaporating apparatus.
Trudy MIREM 25.92-101 '63. (MIRA 17:6)

KUTEPOV, A.M.

Design of cyclone-type separators. Khim. prom. no. 4-245-298
Ap '64.
(MIRA 17;7)

I. Morskovskiy institut khimicheskogo mashinostroyeniya.

KUTEPOV, A.T.; FAFIN, N.A.; BABUSAYA, I.O.

Laboratory pore pressure gauge of the Dnepropetrovsk Institute
of Railroad Transportation Engineers. Vop. geotekh. no.6:129-
134 '63. (MIRA 17:9)

KUTKPOV, B.

Every action will have its reaction... Don. atam. vest. I no. 4:5
Ag '52. (MLRA 7:12)
(Popov, P.Kh.) (Cossacks)

July 19, 1971

Mr. W. J. G.

Attention: "Investigations into the activities of the
Soviet Union and its satellite countries."

All other correspondence please enclose your name.

SO Vechernaya Moskva
Sum 71

KUTE Poy, D.F.

(2)

Dinitro derivatives of diphenylurea and its substitution products. I. M. Kogan and D. E. Kurnosov. U.S.S.R. 78,379, Dec. 31, 1959. *p*-(O,N,N,N-tetraalkyl)CO or its substitution products are obtained by the action of diisobutyl CO(NHPh)₂ or its substitution products having no substituting groups. The reaction is carried out at elevated temp., up to 100°. M. Hoch

10-12-54 M.S.C.

KUTEPOV, D. F.

USSR/Chemistry - Carbanilide, Dinitro
Derivative

Jun 51

"Reaction of Dinitrophenyl Urea With Aromatic
Amines," I. M. Kogan, D. F. Kutepov, Cen Lab,
Dnepromil'vazhny Chem Works iuveni Frunze

"Zhur Obshch Khim" Vol XXI, No 6, pp 1050-1057

In reaction of 4,4'-dinitrocarbanilide (dinitro-
phenyl urea) with aniline, replacement of n-
nitroaniline by aniline and formation of carban-
ilide occur. Replacement reaction proceeds al-
most quantitatively in 15 min at bp temp of ani-
line. Reaction is reversible, but replacement of

186T24
USSR/Chemistry - Carbanilide, Dinitro
Derivative (Contd)

Jun 51

aniline by α -nitroaniline requires large excess of
latter. Reaction is also applicable to other
dinitro derivs of carbanilide.

186T24

191120

KUTEPOV, D. F.

USSR/Chemistry - Nitro Derivatives

Jul 51

"Nitration of Diphenylurea (Carbanilide)," I. M. Kogan, D. F. Kutepor, Cen Lab, Dorogomilov Chem Plant imeni M. V. Frunze

"Zhur Obshch Khim" Vol XXI, No 7, pp 1297-1302

Demonstrated that carbanilide is nitrated with same orientation (6 and p) as other acylated aniline derivs. Nitration both in monohydrate and in aq suspension yields varying amts of 4,4'-dinitrocarbanilide. This compd can be practically prep'd by nitration in aq suspension at

191128

USSR/Chemistry - Nitro Derivatives
(Contd)

Jul 51

90°C using 30% HNO₃. Curtius' view that m,m'-dinitrocarbanilide is formed in nitration of carbanilide must be considered wrong.

191128

CA

Hydrolysis of diphenylurea carbamide. L. M. Kogan and J. F. Karpowicz, Zher. Obshch. Khim., 19, 1666 (1943). Urea carbamide hydrolyzes in acid as well as in alk. media. At 100° it is destroyed in acid as well as in alk. media. At 125° it is destroyed in alk. media and is but little attacked by acids stable in alk. media. At 125° yields 91.2% PhNH₂. Heating I with 30% H₂SO₄ 2.5 hrs. at 125° yields 91.2% PhNH₂. Variation of the acid content at 125° and at 120° hydrolysis shows that the max. is reached at 71.8% H₂SO₄ when 96.1% PhNH₂ is obtained. Acid of this concn. gives the best result at 120°, since at 125° the yield of PhNH₂ decreases to 90.1%. The duration study indicates that after 1 hr. at 120° the acid of 71.8% concn. gives 92% hydrolysis; but at 125° the acid of 71.8% concn. gives 90% hydrolysis with slow hydrolysis from that point on; some 90% hydrolysis occurs in the 10-40 min. No hydrolysis occurs with six hours in the 10-40 min. G. M. Kosolapoff

CA

10

Hydrolysis of 4,4'-dinitrodiphenylurea' (4,4'-dinitrocarbamido). I. M. Kogan and D. P. Kulinov. Zhur. Obshch. Khim. (J. Gen. Chem.) 21, 2028-33 (1951).—Hydrolysis of ($\text{P}_\text{O}_\text{N}(\text{C}_6\text{H}_4\text{NO})_2\text{CO}$) in acid media does not go to completion; with 74.5% H_2SO_4 (optimum concn.) the yield of p -nitroaniline reaches 97.8%; increased temp. usually lowers the yield (90% at 150°, but 71% at 175°). No hydrolysis occurs in HCl solns. below 100° and increase of temp. accelerates the hydrolysis so that at 180° 83.9% hydrolysis occurs, and only 25.3% at 105° in 8 hrs. In alk. solns. hydrolysis is also incomplete, especially since decomp. of the nitroaniline occurs concurrently in the hot alk. soln. For hydrolysis the best medium is 4.5% NaOH sol. at 180° or 30% at 125°, when 93.5% yields of pure nitroaniline are obtained. (G. M. Kowalewski)

KUTEPOV, D. F.

USSR/Chemistry

Card 1/1

Authors : Kutefov, D. F.; and Vukolova, Z. G.

Title : Synthesis of p-nitro-o-anisidine from diarylurea and its dinitro derivative.

Periodical : Zhur. Ob. Khim, 24, Ed. 4, 698 - 702, April 1954

Abstract : Introduced is a new method for the synthesis of 2-methoxy-4-nitroaniline from diarylurea and its dinitro-derivative. This new method is considered to be much better than the one presently used by industry. Treatment of o-anisidine with phosgene leads to easy formation of 2, 2'-dimethoxydiphenylurea. The method of obtaining dinitro-derivatives of diphenylurea by the action of diluted nitric acid at increased temperature also found application in the nitration of 2, 2'-dimethoxydiphenylurea. Five references; 4 USSR since 1933; 1 German 1876. Tables.

Institution :

Submitted : October 30, 1953

H. Lepau, D. E.

✓ Synthesis of aromatic isocyanates. D. F. Kiffney and N. B. Roxanova. ZAP. OBLASTN. KHM. 25, 1757-40 (1956).—The procedures cited in Swiss Patents 216,291-215,329 (C.A. 42, 3833) usually gave poor yields of the reported aryl isocyanates with much contamination by substituted ureas. The following modifications are advised. To 35 g. COCl in 38 g. dry EtOAc at 0-6° was added 15 g. 2,4,6-Cl₃C₆H₃NH₂ in 23 ml. EtOAc; after 20 min. at 0° and 50-60 min. at 20°, during which COCl was passed through the mixt., there was obtained a ppt. of 74.5% 2,4,5-trichlorophenylcarbamoyl chloride (I). Similarly was prep'd. 3,4,5-trichloro isomer, which is isolated from EtOAc soln. by evapn. at 10° *in vacuo*. I in dry (CH₂Cl)₂ was heated on a water bath 2.8 hrs. yielding a ppt. of 1,2',4,4'-5,5'-hexachlorodiphenylurea (II), m. 304°, while the filtrate on evapn. at room temp. gave 2,4,5-trichlorophenyl isocyanate, m. 61°. Similarly was prep'd. the 3,4,5-trichloro isomer, m. 63.0°. The yields are about 75%. Slow distn. of EtOAc from its soln. cl followed by extn. of the solid residue with CC_l gave some II and the trace sol. II 2,4,5-trichlorophenyl carbamate (III), m. 92°. Similarly was prep'd. the 3,4,5-trichloro isomer, m. 132.5°. III also formed satisfactorily from 2,4,6-Cl₃C₆H₃NH₂ and P(O₂)₂CCl after 3 hrs. on a steam bath; similarly were prep'd.: *Me ester*, m. 103°, and *Pr-tert*, m. 70°. Heating I with B(OH)₃ 3 hrs. on a steam bath also gave III. I with ClCH₂CH₂OH in 3 hrs. at 120° gave 2-chloromethyl 2,4,5-trichlorophenyl carbamate, m. 95-100° (from CHCl₃). Crude I prep'd. above from 35 g. COCl and 10 g. 2,4,6-Cl₃C₆H₃NH₂ and freed of EtOAc and the residue was extd. with ClCH₂CH₂OH. The ext. gave about 30% crude 2,4,5-trichlorophenyl isocyanate, m. 60-61°, while the final residue was II. The use

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of 3,4,5-Cl₃CH₂NH₂. In such a procedure gave only the corresponding hexachloro-*o*-phenylurea. A soln. of crude I in EtOAc (from 10 g. ac lac) was dild. with 200 ml. EtOAc and kept at 20° at water pump vacuum to remove HCl and COCl₃ (and some EtOAc), was finally heated to 30° and the residue was extg. with CHCl₃ yielding 74.24% 2,4,5-trichlorophenyl isocyanate, m. 60-1°, while the small residue contained II. Heating 8 g. I in 75 ml. EtOAc, presatd. with HCl, for 60 min. on a steam bath gave on cooling 1.18 g. solid, decomp. 170-0°, containing 15.5% Cl. Identified as 2,4,5-Cl₃CH₂NH₂·HCl. Evapn. of the filtrate gave more of the same and 0.14 g. II.

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